

**Flood Control Project Maintenance
Levee Inspections****LMA District Cover Sheet****Spring 2016 Levee Inspection Results****Sutter Maintenance Yard Maintenance Area 0016**

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
* Overall LMA Rating (Fall Only)				

** Non-receipt of Summer or Winter Inspection Reports may effect overall annual rating.

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SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.

Comments

**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Spring 2016 Levee Inspection Results

Sutter Maintenance Yard Maintenance Area 0016

Waterway			Bank	Unit Miles
Unit No. 01 Feather River			Right	4.06
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	4/5/2016 - 4/8/2016			
DWR Inspector	Sterling York			
Accompanied By	Sean Freitag			

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	04/05/2016 04/08/2016	Sterling York

LM Start		Rating **	A	Issue No.	3
LM End		Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Operations & Maintenance Manuals			°	°
				°	°
DWR ID	DWR_MA0016_01_s _ 2013_3				
Comment Code					
Inspector Comment					
The O&M manuals are located at the Sutter Maintenance Yard.					

No Photos

LM Start		Rating **	A	Issue No.	4
LM End		Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Flood Preparedness & Training			°	°
				°	°
DWR ID	DWR_MA0016_01_s _ 2013_4				
Comment Code					
Inspector Comment					
Sutter maintenance yard employees attend the annual Flood Fight class put on by DWR inspector Bob Duffy.					

No Photos

LM Start		Rating **	A	Issue No.	5
LM End		Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Emergency Supplies & Equipment			°	°
				°	°
DWR ID	DWR_MA0016_01_s _ 2013_5				
Comment Code					
Inspector Comment					
Emergency supplies and equipment are stored at the Sutter Maintenance Yard.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	04/05/2016 04/08/2016	Sterling York

LM Start	0.00	Rating **	A	Issue No.	19
LM End	4.06	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.255786 °	39.310941 °
				-121.636377 °	-121.637634 °
DWR ID	DWR_MA0016_01_s_2016_19				
Comment Code					
EQ : Equipment					
Inspector Comment					
MA 0016 Is under construction from levee mile 0.0 to 4.0598 and has not been turned back over to the LMA.					

No Photos

LM Start	0.06	Rating **	M	Issue No.	2
LM End	0.10	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.256618 °	39.257228 °
				-121.636442 °	-121.636462 °
DWR ID	DWR_MA0016_01_s_2012_2				
Comment Code					
V6 : Landscaping					
Inspector Comment					

Photo 1 of 1 : SP_2016_MA0016_302_2_20160307_00001.jpg



This photo shows the landscaping on the landside slope and toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	04/05/2016 04/08/2016	Sterling York

LM Start	0.11	Rating **	M	Issue No.	26
LM End	0.11	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.257308 °	39.257308 °
				-121.636582 °	-121.636582 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:45934 DS_ID:17180 EP_NO: 4556 Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: 6/8/2015 Unable to locate.2/11/2015: Revised Location and added arial photo showing U-shaped concrete headwall on LS toe. Pipe should be completely removed from levee. Unable to locate any evidence of crossing 12/11/12.11/6/2013 Unable to locate.5/19/2014 SBFCA project had levee access blocked. Could not get to pipe.12/29/2014 Access bocked due to SBFCA project. FIELD_STRUCT_DESC: *ABANDONED* 36 inch CMP drainpipe through the levee 22-feet below the crown. Concrete U-shaped headwall on LS toe. Originally included in O+M manual at 473+30. Pipe was abandoned in place and a concrete plug was installed in WS slope after pipe failed in 1964 under permit No. 4556. FS Date: 6/16/2015 7:00:53 AM					

Photo 1 of 1 : UCIP_SP_2016_45934_73040.jpg



Aerial photo showing location of Concrete headwall on LS toe.

LM Start	0.18	Rating **	M	Issue No.	15
LM End	0.18	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.258437 °	39.258437 °
				-121.636613 °	-121.636613 °
DWR ID	DWR_MA0016_01_s_2012_15				
Comment Code					
BU : Building					
Inspector Comment					

Photo 1 of 1 : SP_2016_MA0016_302_15_20160307_00004.jpg



Levee mile 0.18. This photo shows the building on the landside shoulder and toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	04/05/2016 04/08/2016	Sterling York

LM Start	0.44	Rating **	U	Issue No.	7
LM End	0.49	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.262213 °	39.262825 °
				-121.636545 °	-121.636430 °
DWR ID	DWR_MA0016_01_s_2012_7				
Comment Code					
BU : Building					
Inspector Comment					

Photo 1 of 1 : SP_2016_MA0016_302_7_20160307_00002.jpg



Levee mile 0.49. This photo shows the building and landscaping on the landside slope and toe.

LM Start	1.09	Rating **	M	Issue No.	18
LM End	1.42	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.271369 °	39.275852 °
				-121.634080 °	-121.632502 °
DWR ID	DWR_MA0016_01_s_2016_18				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	1.49	Rating **	M	Issue No.	17
LM End	1.81	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.276951 °	39.281465 °
				-121.632803 °	-121.632339 °
DWR ID	DWR_MA0016_01_s_2016_17				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

* Location		** Rating		+ Issue Type	
LS : Land Side	N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency	
WS : Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	04/05/2016 04/08/2016	Sterling York

LM Start	1.53	Rating **	M	Issue No.	12
LM End	1.81	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.277548 °	39.281465 °
				-121.632963 °	-121.632338 °
DWR ID	DWR_MA0016_01_s_2016_12				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	1.69	Rating **	M	Issue No.	27
LM End	1.69	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.279812 °	39.279812 °
				-121.632987 °	-121.632987 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:45938 DS_ID:17129 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 6/8/2015 SBFCA project recommended replacing this pipe but after completion of the project in this area i was unable locate any signs of this crossing.Pipe is partially buried at LS toe and shows heavy corrosion. Unable to locate headwalls on either side of levee. Pipe should be cleared of soil and inspected (suspect heavy corrosion throughout pipe).5/14/2013 SBFCA project recommends replacing in accordance with title 23.5/14/2013 Same as last inspection.11/6/2013 Same as last inspection.5/19/2014 SBFCA project had levee access blocked. Could not get to pipe.12/29/2014 Access blocked due to SBFCA project. FIELD_STRUCT_DESC: 12-inch CM Storm drain pipe through the levee 14.5 feet below the crown. Slide gate on the waterward end. (O&M entry-As built available 50-4-2193A). FS Date: 6/16/2015 7:18:33 AM					

Photo 1 of 2 : UCIP_SP_2016_45938_65766.jpg



Pipe at LS inlet showing heavy silt and corrosion of pipe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	04/05/2016 04/08/2016	Sterling York

LM Start	1.69	Rating **	M	Issue No.	27 (cont)	
LM End	1.69	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			39.279812 °	39.279812 °	
				-121.632987 °	-121.632987 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:45938 DS_ID:17129 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 6/8/2015 SBFCA project recommended replacing this pipe but after completion of the project in this area i was unable locate any signs of this crossing.Pipe is partially buried at LS toe and shows heavy corrosion. Unable to locate headwalls on either side of levee. Pipe should be cleared of soil and inspected (suspect heavy corrosion throughout pipe).5/14/2013 SBFCA project recommends replacing in accordance with title 23.5/14/2013 Same as last inspection.11/6/2013 Same as last inspection.5/19/2014 SBFCA project had levee access blocked. Could not get to pipe.12/29/2014 Access blocked due to SBFCA project. FIELD_STRUCT_DESC: 12-inch CM Storm drain pipe through the levee 14.5 feet below the crown. Slide gate on the waterward end. (O&M entry-As built available 50-4-2193A). FS Date: 6/16/2015 7:18:33 AM						

Photo 2 of 2 : UCIP_SP_2016_45938_65767.jpg



screwgate and headwall found on LS

LM Start	2.69	Rating **	M	Issue No.	13
LM End	3.08	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.293217 °	39.296752 °
				-121.633682 °	-121.638217 °
DWR ID	DWR_MA0016_01_s_2016_13				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

Photo 1 of 1 : SP_2016_MA0016_302_13_20160418_00014.jpg



Vegetation on landside slope looking downstream.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable		N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	04/05/2016 04/08/2016	Sterling York

LM Start	2.85	Rating **	M	Issue No.	14
LM End	3.08	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.293675 °	39.296748 °
				-121.636615 °	-121.638192 °
DWR ID	DWR_MA0016_01_s_2012_14				
Comment Code					
DT : Ditch					
Inspector Comment					

Photo 1 of 1 : SP_2016_MA0016_302_14_20160307_00003.jpg



Agricultural ditch land side slope and toe.

LM Start	2.86	Rating **	C	Issue No.	25
LM End	2.86	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.293865 °	39.293865 °
				-121.636690 °	-121.636690 °
DWR ID	DWR_MA0016_01_f_2013_25				
Comment Code					
V6 : Landscaping					
Inspector Comment					
Remove the landscape from the waterside slope.					

No Photos

LM Start	2.88	Rating **	M	Issue No.	16
LM End	3.08	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.294076 °	39.296752 °
				-121.636775 °	-121.638217 °
DWR ID	DWR_MA0016_01_s_2016_16				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

Photo 1 of 1 : SP_2016_MA0016_302_16_20160418_00013.jpg



Vegetation on waterside slope looking downstream.

*** Location**
LS : Land Side N/A : Not Applicable
WS : Water Side
CR : Crown

**** Rating**
A : Acceptable N : Not Inspected/Rated
M : Minimally Acceptable C : Corrected
U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type
Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	04/05/2016 04/08/2016	Sterling York

LM Start	3.27	Rating **	M	Issue No.	11
LM End	3.27	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.299502 °	39.299502 °
				-121.638326 °	-121.638326 °
DWR ID	DWR_MA0016_01_s_2016_11				
Comment Code					
PR : Prunings					
Inspector Comment					

Photo 1 of 1 : SP_2016_MA0016_302_11_20160418_00015.jpg



Large pruning on waterside slope.

LM Start	3.39	Rating **	M	Issue No.	28
LM End	3.39	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.301218 °	39.301218 °
				-121.638332 °	-121.638332 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:45943 DS_ID:17183 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: 6/8/2015 Concrete headwall is still cracked and inlet is buried. It was said to be replaced with the SBFCA project but the project skipped over in this area.Pipe burried on LS toe and should be inspected along with adjacent 24-inch once uncovered.5/14/2013 SBFCA project recommends replacing in accordance with title 23.5/14/2013 Same as last inspection.11/6/2013 Same as last inspection.5/19/2014 Same as last inspection.12/29/2014 Same as last inspection. FIELD_STRUCT_DESC: 2 of 2: 24-inch CMP drain pipe through the levee 16.6-feet below the crown. Headwalls at both ends and a Flap gate on the WS toe. FS Date: 6/16/2015 7:45:31 AM					

Photo 1 of 2 : UCIP_SP_2016_45943_65780.jpg



Pipe should be located on either side of the one visible in this picture.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	04/05/2016 04/08/2016	Sterling York

LM Start	3.39	Rating **	M	Issue No.	28 (cont)	
LM End	3.39	Issue Type +	En	Location *	WS	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			39.301218 °	39.301218 °	
				-121.638332 °	-121.638332 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:45943						
DS_ID:17183						
EP_NO: N/A						
Repair Type: Non-Urgent						
Crossing Status: Indicator Found						
UCIP Comments: 6/8/2015 Concrete headwall is still cracked and inlet is buried. It was said to be replaced with the SBFCA project but the project skipped over in this area.Pipe burried on LS toe and should be inspected along with adjacent 24-inch once uncovered.5/14/2013 SBFCA project recommends replacing in accordance with title 23.5/14/2013 Same as last inspection.11/6/2013 Same as last inspection.5/19/2014 Same as last inspection.12/29/2014 Same as last inspection.						
FIELD_STRUCT_DESC: 2 of 2: 24-inch CMP drain pipe through the levee 16.6-feet below the crown. Headwalls at both ends and a Flap gate on the WS toe.						
FS Date: 6/16/2015 7:45:31 AM						

Photo 2 of 2 : UCIP_SP_2016_45943_65779.jpg



Headwall and flap gate on WS toe.

LM Start	3.39	Rating **	M	Issue No.	10
LM End	3.66	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.301322 °	39.305194 °
				-121.638336 °	-121.637706 °
DWR ID	DWR_MA0016_01_s_2016_10				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	04/05/2016 04/08/2016	Sterling York

LM Start	3.90	Rating **	M	Issue No.	9
LM End	4.04	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.308616 °	39.310591 °
				-121.637671 °	-121.637695 °
DWR ID	DWR_MA0016_01_s _ 2016_9				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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